GL4
MULTI-FUNCTION LIVE CONSOLE

MUTE GROUP SYSTEM
USER MANUAL

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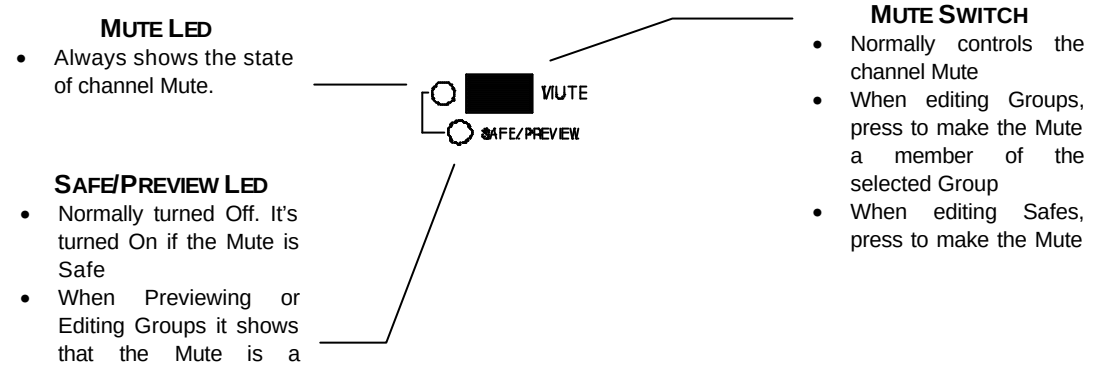
INTRODUCTION

The GL4's Mute Group System allows all channel Mutes, including Group, Aux, Left, Right & Mono Mutes, to be assigned to 8 Mute Groups. Multiple Mutes can then turned on or off using a single switch. Mute Groups can be Previewed before activating them, and Mutes can also be made Safe. A Safe Mute can only be turned on or off by pressing the Mute switch, it cannot be turned on or off using either a Mute Group or MIDI.

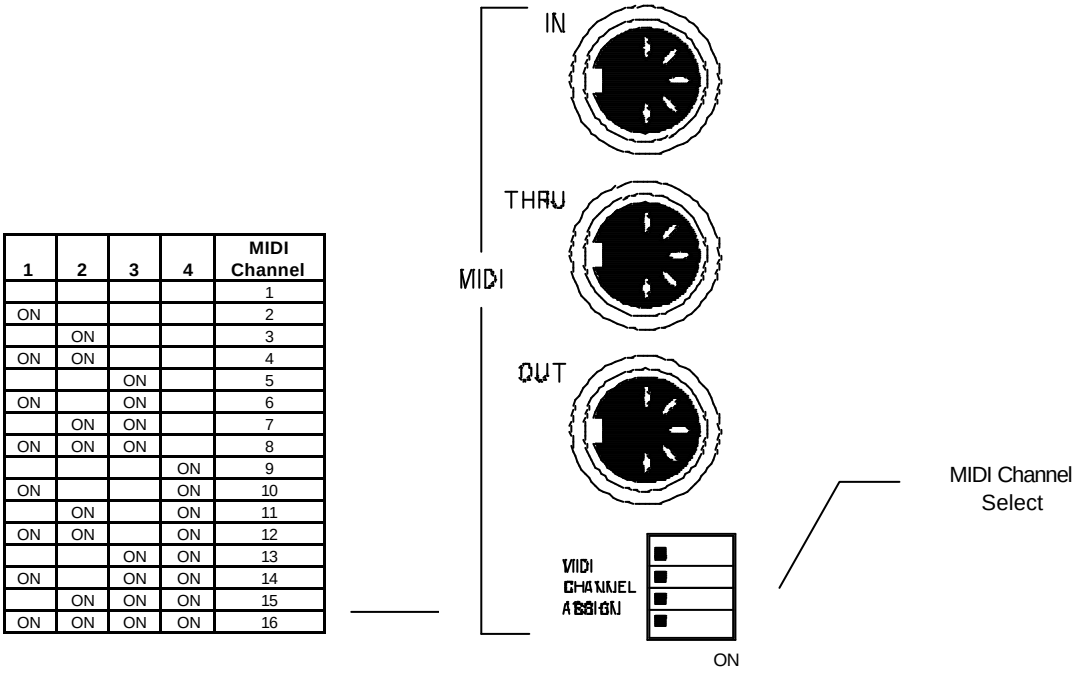
MIDI can be used to control Mutes and Mute Groups, and Mute Groups can be used to control Effects devices. The Mute Group Systems of two GL4s can also be linked using MIDI.

All Group & Safe settings, including the Mute settings are saved in the console when the GL4 is turned off.

CHANNEL MUTE

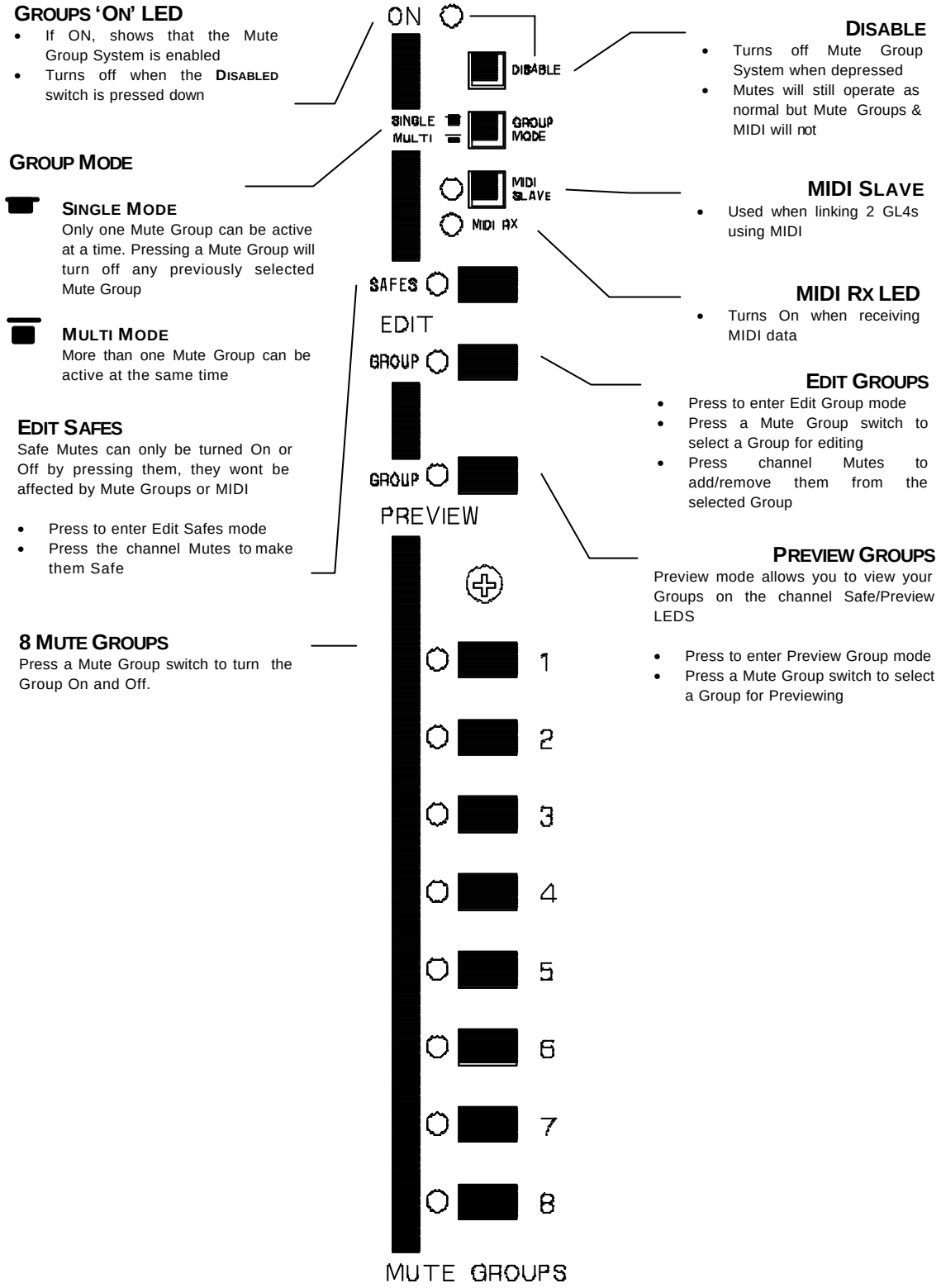

MUTE LED
Always shows the state of channel Mute.
SAFE/PREVIEW LED
Normally turned Off. It's turned On if the Mute is Safe
When Previewing or Editing Groups it shows that the Mute is a
MUTE
SAFE/PREVIEW
MUTE SWITCH
Normally controls the channel Mute
When editing Groups, press to make the Mute a member of the selected Group
When editing Safes, press to make the Mute

REAR PANEL



1	2	3	4	MIDI Channel
				1
ON				2
	ON			3
ON	ON			4
		ON		5
ON		ON		6
	ON	ON		7
ON	ON	ON		8
			ON	9
ON			ON	10
	ON		ON	11
ON	ON		ON	12
		ON	ON	13
ON		ON	ON	14
	ON	ON	ON	15
ON	ON	ON	ON	16

CONTROL SECTION



GROUPS 'ON' LED

- If ON, shows that the Mute Group System is enabled
- Turns off when the **DISABLED** switch is pressed down

GROUP MODE

SINGLE MODE
Only one Mute Group can be active at a time. Pressing a Mute Group will turn off any previously selected Mute Group

MULTI MODE
More than one Mute Group can be active at the same time

EDIT SAFES

Safe Mutes can only be turned On or Off by pressing them, they wont be affected by Mute Groups or MIDI

- Press to enter Edit Safes mode
- Press the channel Mutes to make them Safe

8 MUTE GROUPS

Press a Mute Group switch to turn the Group On and Off.

DISABLE

- Turns off Mute Group System when depressed
- Mutes will still operate as normal but Mute Groups & MIDI will not

MIDI SLAVE

- Used when linking 2 GL4s using MIDI

MIDI RX LED

- Turns On when receiving MIDI data

EDIT GROUPS

- Press to enter Edit Group mode
- Press a Mute Group switch to select a Group for editing
- Press channel Mutes to add/remove them from the selected Group

PREVIEW GROUPS

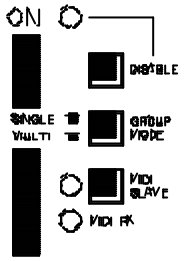
Preview mode allows you to view your Groups on the channel Safe/Preview LEDS

- Press to enter Preview Group mode
- Press a Mute Group switch to select a Group for Previewing

USING THE MUTE GROUP SYSTEM

SETTING UP

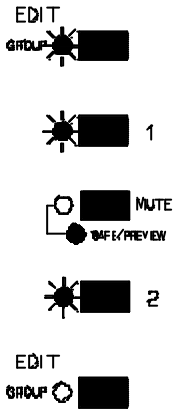
Before using the Mute Group system check the following:



- The **Disable** switch is UP & the **Groups On** LED is On
- The **Group Mode** switch is in the desired position for Multi or Single Group Mode
- The **MIDI Slave** switch is UP (unless you are linking 2 GL4s together - see 'Linking two GL4s')
- If you are using MIDI, check that the **MIDI Channel** is as required (see Rear Panel above)

If you do not want to use the Mute Group system you can turn it OFF by pressing the Disable switch DOWN, the Groups On LED will turn Off.

EDITING MUTE GROUPS



- Press the **Edit Group** switch, the LED will start flashing
- Press a **Mute Group** switch to select it for editing, it's LED will start flashing. The Mutes that are part of the selected Group will turn ON their Safe/Preview LEDs
- Press the channel **Mute** switches to add or remove Mutes from the selected Group
- To edit another Group, press another **Mute Group** switch. The settings of the old Group will automatically be stored
- Press the **Edit Group** switch again to return to normal operation, the LED will stop flashing

NOTE:

In Edit Group Mode a channel Mute **is not** affected when the Mute switch is pressed.

USING MUTE GROUPS

To turn On a Group press a **Mute Group** key, it's LED will turn On
When turning On a Group, Mutes that are OFF will only turn ON if:

- they are in the Group being activated, *and*
- they are not Safe Mutes

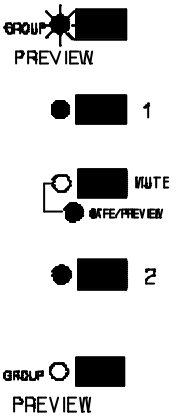
To turn Off a Group press the Mute Group switch again.
When turning Off a Group, Mutes that are ON will only turn OFF if:

- they were not turned ON by a manual press, *and*
- they are in the Group being deactivated, *and*
- they are not in another active Group, *and*
- they are not Safe Mutes

If the **Group Mode** switch is UP, multiple Groups can be activated. If the **Group Mode** switch is DOWN then the Groups are interlocked, e.g. if Group 1 was active, activating Group 4 would deactivate Group 1.

PREVIEWING MUTE GROUPS

The GL4 Mute Group system allows you to view your Group settings on the channel Safe/Preview LEDs before activating them.



- Press the **Preview Group** switch, the LED will start flashing
- Press a **Mute Group** switch to select it for preview, it's LED will turn On. The Mutes that are part of the selected Group will turn on their Safe/Preview LEDs
- To preview another Group, press another **Mute Group** switch.
- Press the **Preview Group** switch again to return to normal operation, the LED will stop flashing

EDITING SAFE MUTES

The Gl4 Mute Group system lets you make any of the channel Mutes Safe. A Safe Mute can only be turned on & off by manual presses. It cannot be controlled by a Mute Group or by MIDI.

- Press the **Edit Safes** switch, the LED will start flashing
- Press the channel **Mute** switches to make Mutes Safe. The Safe/Preview LEDs of channels that are Safe will turn ON.
- Press the **Edit Safes** switch again to return to normal operation, the LED will stop flashing
- The Safe channels will now have their Safe/Preview LEDs turned On.

NOTE:
In Edit Safes Mode a channel Mute **is not** affected when the Mute switch is pressed.

USING MIDI

NOTE:
If the GL4 Mute System is Disabled, the GL4s MIDI capability is also disabled.

MUTES

Pressing a channel Mute will transmit a MIDI Note On message on the current channel. Similarly, if the GL4 receives a MIDI Note On message, the appropriate channel mute will be turned On & Off.

See the **MIDI Implementation** section for the Mute to MIDI Note translation chart.

MUTE GROUPS

Pressing a Mute Group switch will transmit a MIDI Program Change message on the current MIDI channel. This can be used, for example, to change the patch no. of an effects device connected via MIDI. Also, if the GL4 receives valid MIDI Program Change messages Mute Groups can be activated & de-activated.
See the **MIDI Implementation** section for Mute Group to Program Change translation chart

LINKING 2 GL4S USING MIDI

You can link the Mute Group Systems of 2 GL4 consoles using MIDI. To do this simply select one the GL4s to be a **MIDI Slave** by pressing DOWN it's MIDI Slave switch. Then connect the MIDI OUT of the *master* GL4 to the MIDI IN of the *slave* GL4. The Control section of the Slave GL4 is now disabled, it's Control LEDs, however, will follow the status of the Master GL4s control section.

Both GL4s must be on the same MIDI channel.

MIDI IMPLEMENTATION

MIDI NOTE TO CHANNEL MUTE

Console Channel No.	MIDI Note Master			MIDI Note Slave		
	Dec	Hex	Note	Dec	Hex	Note
Left	3	03		67	43	G4
Right	4	04		68	44	G#4
Mono	5	05		69	45	A4
Aux Send 9	6	06		70	46	A#4
Aux Send 10	7	07		71	47	B4
Aux Send 1 - 6	8 - 15	08 - 0F	C0 - D#0	72 - 79	48 - 4F	C5 - G5
Group 1 - 8	16 - 23	10 - 17	E0 - B0	80 - 87	50 - 57	G#5 - D#6
Channel 1 - 8	24 - 31	18 - 1F	C1 - G1	88 - 95	58 - 5F	E6 - B6
Channel 9 - 16	32 - 39	20 - 27	G#1 - D#2	32 - 39	20 - 27	
Channel 17 - 24	40 - 47	28 - 2F	E2 - B2	40 - 47	28 - 2F	
Channel 25 - 31	48 - 55	30 - 37	C3 - G3	48 - 55	30 - 37	
Channel 32 - 40	56 - 63	38 - 3F	G#3 - G#4	56 - 63	38 - 3F	

MIDI PROGRAM CHANGE TO MUTE GROUP

Mute Group No.	Program No.	
	Group On	Group Off
1 - 8	0 - 7	64 - 71

TECHNICAL SUPPORT - ADDITIONAL INFORMATION

HARD RESET

A console hard reset can be performed by holding down the **Edit Groups** & **Edit Safes** switches on power-up. A hard reset will clear all group safe settings .

SOFTWARE VERSION NO.

The software version can be determined

a) by looking at the label on the EPROM on the Mono PCB

b) by inspecting the MIDI System Exclusive message header which is transmitted by the GL4 on power-up.

The System Exclusive message header for GL4 is:

{header} = F0 00 00 1A 50 04 ss 0n

n = MIDI channel

software version: 00 => v1.00/0

The software version number is coded as:

bit	7	6	5	4	3	2	1	0
	0	maintenance version			minor version			